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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,171	01/16/2001	Lothar Zimmermann	P20465	9812

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/01/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/759,171	ZIMMERMANN, LOTHAR <i>Ch</i>
	Examiner	Art Unit
	Marc Jimenez	3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 March 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-22 and 24-51 is/are pending in the application.

4a) Of the above claim(s) 24-46 and 48-51 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-22 and 47 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. The restriction requirement made final in the last office action is herein maintained. Furthermore, the process could be used to make a product that is not a solid cylindrical mass having a smooth outer surface.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-8, 12, 13, 16-18, 20, 21, and 47** are rejected under 35 U.S.C. 102(b) as being anticipated by Holroyd et al. (2,534,818).

Holroyd et al. teach a roll for smoothing a web comprising: a hard metal (col. 3, line 37) roll core 10 having an outer surface, a covering layer 12 disposed on the outer surface of the roll core 10, the covering layer 12 having an inner surface and an outer surface, the covering layer 12 comprising at least one thermosetting plastic (col. 2, line 17 and col. 4, lines 64-68) and at least one thermoplastic (col. 2, line 20 and col. 4, lines 68-70), wherein the at least one thermoplastic has a melting temperature which is below a glass transition temperature of the at least one thermosetting plastic (col. 4, lines 64-71), and wherein the covering layer 12 is a solid

cylindrical mass having a smooth outer surface (col. 1, lines 21-22 “smoothness of the outer surface of the ironer roll” and col. 2, lines 15-18, “...cover for ironer rolls which is impregnated with a substantial amount of thermosetting resin to impart to the fabric the desired smoothness of surface,...”). In col. 4, lines 64-71, Holroyd et al. gives examples of thermoplastics that could be used, namely: acrylic resin such as polymethyl methacrylate, or Kandar, polystyrene or polyvinyl butyral. Holroyd et al. also give examples of thermosetting resins that could be used, namely: melamine-formaldehyde, urea-formaldehyde, a polyester resin, an alkyd resin, or styrene-maleic anhydride copolymer resin. It is noted that if the thermoplastic that was used was “acrylic resin” (which has a melting temperature of 130degrees C, see physical properties of acrylic resin attached to this office action) and the thermosetting resin that was used was “styrene-maleic anhydride copolymer resin” (which has a glass transition temperature of 155 degrees C, see physical properties of styrene-maleic anhydride copolymer resin attached to this office action), the thermoplastic has a melting temperature (130degrees C) which is below a glass transition temperature of the thermosetting plastic (155 degrees C). Furthermore, applicant has submitted a “Plastics Chooser Chart” to show that one of ordinary skill in the art is well aware of both thermoplastics and thermosetting plastics and such a skilled person also knows the particular properties of such plastic types, wherein polyester resin, a thermosetting, is listed along with acrylic, which is a thermoplastic. Applicant also states that each of the commonly known materials would suffice to practice the instant invention (see page 10 of applicant’s response filed 8/30/02, paper #9). Therefore, since Holroyd et al. teach using a polyester resin (col. 4, line 66) and an acrylic (col. 4, line 69), Holroyd et al. inherently teaches that the thermoplastic has a melting temperature which is below a glass transition temperature of the thermosetting plastic.

Note that the covering layer 12 comprises a matrix material and wherein one of fillers and fibers (col. 3 lines 67-75 to col. 4, lines 1-5) are embedded in the matrix material. The amount of thermosetting plastic is greater than the amount of thermoplastic (col. 3, lines 14-18). The claimed proportions of thermosetting plastic to thermoplastic is shown at col. 3, lines 14-18.

The web being a paper web does not further limit the structure of the roll and has not been given patentable weight.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 9-11, 14, 15, 19, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Holroyd et al.

With respect to Claims 9-11, Holroyd et al. teach the invention cited above with the exception of using at least two different thermoplastics and at least two different thermosetting plastics.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use at least two different thermoplastics and at least two different thermosetting plastics because applicant has not disclosed that using at least two different thermoplastics and at least two different thermosetting plastics provides an

advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either one thermoplastic and one thermosetting plastic as taught by Holroyd et al. or the claimed at least two different thermoplastics and at least two different thermosetting plastics because both combinations perform the same function of providing a layer that work equally as well considering the desired heat resistance on the surface of the roll.

With respect to Claims 14 and 15, Holroyd et al. teach the invention cited above with the exception of the mixture ratio varying over a radial thickness of the covering layer.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have provided a mixture ratio that varies over a radial thickness of the covering layer because applicant has not disclosed that a mixture ratio that varies over a radial thickness of the covering layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either mixture ratio as taught by Holroyd et al. or the claimed mixture ratio that varies over a radial thickness of the covering layer because both mixture ratios perform the same function of providing a layer that work equally as well considering the desired heat resistance on the surface of the roll.

With respect to Claims 19 official notice is taken that it is well known in the art to use the claimed reinforcing fibers.

With respect to Claim 22, Holroyd et al. teach the invention cited above with the exception of using powdered fillers.

At the time the invention was made, it would have been an obvious matter of design

choice to a person of ordinary skill in the art to have used powdered fillers because applicant has not disclosed powdered fillers provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the fibers taught by Holroyd et al. or the claimed powdered fillers because both fillers perform the same function of providing a reinforcement equally as well considering the desired reinforcement of the surface layer.

Response to Arguments

6. Applicant's arguments filed 3/12/03 have been fully considered but they are not persuasive.
7. Applicant argues that because the roll cover of Holroyd is designed to be "porous" or "pervious to moisture", the roll cover is not a solid cylindrical mass, much less, one that has a smooth outer surface. However, the roll cover 12 of Holroyd is clearly in solid form, not liquid. In the original disclosure, applicant has not provided an explanation or definition on what applicant considers to be "solid", therefore, the ordinary definition of the term "solid" could be used. In the response filed 2/13/03, paper #11 (page 4, first two full paragraphs), applicant states that the cylindrical mass feature is not literally recited in the instant specification, however, it is clearly and inherently disclosed in the instant figures because the covering layer 3 is solid, cylindrical, and it has mass. It is also noted, that in fig. 1 of Holroyd, it is also inherently disclosed that the covering layer 12 is solid, cylindrical, and has mass. The claims do not preclude a porous or pervious covering layer. Furthermore, Holroyd clearly teaches that the covering layer 12 is "smooth", see col. 1, lines 21-22 and col. 2, lines 17-18.

8. Applicant argues that Holroyd is directed to an ironer roll and not to a roll form smoothing a web. However, the ironer roll of Holroyd is used to smooth a fabric material (or ironed goods in col. 1, line 19) which is a web. Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

9. Applicant argues that the roll of Holroyd is manufactured in an entirely different way than the rolls of the type disclosed in the instant invention. However, the instant invention is drawn to the particular structure of the roll. The method of forming the device is not germane to the issue of patentability of the device itself.

Contact Information

10. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies

of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is 703-306-5965. The examiner can normally be reached on Monday-Friday, between 5:30 am- 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

For further information, contact:

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404/8335
Petitions/Special Programs	(703) 305-9285
Terminal Disclaimers	(703) 305-8408
PCT Help Desk	(703) 305-3257

If the information desired is not provided above, or a number has been changed, please call the general information help line below.

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MJ *mj*
March 27, 2003



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TECHNOLOGY CENTER 3700